

(a) supporting a free-space optical laser communication system having signal transmission and reception channels along which variations in the intensity of laser beam carrier signals are caused by atmospheric turbulence; and

(b) providing a laser beam speckle tracking (i.e. following) mechanism along said signal reception channel to achieve stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel.

Claim 18 (new): The method of claim 17, wherein said signal transmission and reception channels are optically-separated.

Claim 19 (new): The method of claim 17, wherein said signal transmission and reception channels are optically-combined.

Claim 20 (new): A method of automatically stabilizing variations in the intensity of received laser beam carrier signals caused by atmospheric turbulence along the signal reception channels of a free-space optical laser communication system supporting signal transmission and reception channels, said method comprising:

(a) supporting a free-space optical laser communication system having signal transmission and reception channels along which variations in the intensity of laser beam carrier signals are caused by atmospheric turbulence; and

(c) providing a speckle-to-fiber/detector locking mechanism along said signal reception channel to achieve stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel.

Claim 21 (new): The method of claim 20, wherein said signal transmission and reception channels are optically-separated.

Claim 22 (new): The method of claim 20, wherein said signal transmission and reception channels are optically-combined.

Claim 23 (new): A method of automatically stabilizing variations in the intensity of received laser beam carrier signals caused by atmospheric turbulence along the signal reception channels of a free-space optical laser communication system supporting signal transmission and reception channels, said method comprising:

(a) supporting a free-space optical laser communication system having signal transmission and reception channels along which variations in the intensity of laser beam carrier signals are caused by atmospheric turbulence;

(d) providing a laser beam speckle tracking (i.e. following) mechanism along said signal reception channel to achieve a first level of stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel; and

(e) providing a speckle-to-fiber/detector locking mechanism along said signal reception channel to achieve a second level of stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel.

Claim 24 (new): The method of claim 23, wherein said signal transmission and reception channels are optically-separated.

Claim 25 (new): The method of claim 23, wherein said signal transmission and reception channels are optically-combined.

Claim 26 (new): Apparatus for automatically stabilizing variations in the intensity of received laser beam carrier signals caused by atmospheric turbulence along the signal reception channels of a free-space optical laser communication system supporting signal transmission and reception channels, said apparatus comprising:

a free-space optical laser communication system having signal transmission and reception channels along which variations in the intensity of laser beam carrier signals are caused by atmospheric turbulence; and

a laser beam speckle tracking (i.e. following) mechanism along said signal reception channel to achieve stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel.

Claim 27 (new): The apparatus of claim 26, wherein said signal transmission and reception channels are optically-separated.

Claim 28 (new): The apparatus of claim 26, wherein said signal transmission and reception channels are optically-combined.

Claim 29 (new): Apparatus for automatically stabilizing variations in the intensity of received laser beam carrier signals caused by atmospheric turbulence along the signal reception channels of a free-space optical laser communication system supporting signal transmission and reception channels, said apparatus comprising:

- a free-space optical laser communication system having signal transmission and reception channels along which variations in the intensity of laser beam carrier signals are caused by atmospheric turbulence; and

- a speckle-to-fiber/detector locking mechanism along said signal reception channel to achieve stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel.

Claim 30 (new): The apparatus of claim 29, wherein said signal transmission and reception channels are optically-separated.

Claim 31 (new): The apparatus of claim 29, wherein said signal transmission and reception channels are optically-combined.

Claim 32 (new): Apparatus for automatically stabilizing variations in the intensity of received laser beam carrier signals caused by atmospheric turbulence along the signal reception channels

of a free-space optical laser communication system supporting signal transmission and reception channels, said apparatus comprising:

- a free-space optical laser communication system having signal transmission and reception channels along which variations in the intensity of laser beam carrier signals are caused by atmospheric turbulence;

- a laser beam speckle tracking (i.e. following) mechanism along said signal reception channel to achieve a first level of stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel; and
- a speckle-to-fiber/detector locking mechanism along said signal reception channel to achieve a second level of stabilization in the intensity of the laser beam carrier signal received and detected at the signal detector of said signal reception channel.

Claim 33 (new): The apparatus of claim 32, wherein said signal transmission and reception channels are optically-separated.

Claim 34 (new): The apparatus of claim 32, wherein said signal transmission and reception channels are optically-combined.